

induced the surgeon to doubt the correctness of his diagnosis; and the next day Dr. Cummins was consulted. He found the symptoms as follows:—

"The right limb was shortened by fully three inches, and it could not be lengthened in any degree. The knee and toes were very much turned out; and the attempt to rotate the thigh inward produced exquisite pain, without producing any change in the position of the limb. Abduction and adduction were nearly equally difficult and painful; but flexion could, to a certain extent, be performed with less difficulty. The hip was flattened; and the trochanter major not to be discovered. There was no hard or distinct tumour on the pubes; but close below the anterior superior spine of the ilium, between it and the situation of the inferior, there was a very distinct, hard, round tumour, which could be felt moving in unison with the thigh when flexion and extension were performed. There was no crepitus, no possibility of lengthening the limb, and, of course, no successive retraction on the removal of the extending force, as takes place in fracture of the neck of the thigh bone. The tumour at the anterior superior spine was fixed in its relative position; and between its most prominent part, and the point of the spine, the distance was only a few lines, and nearly in the perpendicular, as it projected but little into the abdomen."

This condition of things satisfied Dr. Cummins that the case was one of dislocation; that the tumour, situated immediately under the anterior superior spine of the ilium, was formed by the head of the femur; and consequently, that the neck of the thigh bone and trochanter major lay on the contiguous portion of the dorsum ilii, above the acetabulum; and finally, that reduction ought to be attempted by extending the joint in the direction downward and backward, raising the head of the bone, and rotating the knee inward, so as to turn the head of the bone into the acetabulum.

"On the 19th, a grain of tartar emetic having been previously administered at short intervals till sickness and vertigo came on, the extension, by means of the pulleys was gradually increased. Mr. Gibson, having a towel passed under the patient's thigh and over his own shoulder, raised the head of the bone, which now left its position at the anterior superior spine, and gradually came down; and then turned the knee firmly inward, at the same time pressing it towards the opposite one. The head of the bone glided into the acetabulum without any sound or snapping—the fact being only with certainty ascertained by our finding the prominence of the trochanter returned to its proper situation; the tumour, which was formerly at the anterior superior spine, entirely removed, the knee and foot in their proper direction, and the limb of equal length with the other. The extending apparatus was removed, the patient's knees were bound together, and he was placed in bed. In a fortnight, he was sufficiently restored to be able to walk a short way out of doors, and soon entirely recovered from the effects of the injury.—The reduction was effected in about twenty minutes."

42. *Pes equinus cured by dividing the Tendo Achillis.*—Dr. GUSTAVUS KRAUSS has communicated to the *Med. Chirurg. Society* the following interesting case of this character. G. Bocock, a boy 17 years of age, in consequence of external injury, became affected with an extensive abscess on the calf of the left leg. The mischief extended over the whole of the leg and thigh. He entered St. Bartholomew's Hospital, and was discharged cured after a stay of sixteen weeks in the hospital. The knee, which had been kept in the bent position during the cure of the abscesses, gradually became extended, but the retraction of the heel still remained when the patient placed himself under my care.

The dorsum of the foot was nearly in a line with the tibia at that time, the articulating surface of the astragalus being very prominent, and the heel being entirely drawn up. The patient walked upon the toes, resting upon the anterior extremities of the metatarsal bones, and the foot offered a true example of pes equinus in a high degree. On the internal side of the gastrocnemii muscles a tight and hard cord existed; the knee could not entirely be straightened; it formed a slight curve, the tendons of the semi-membranosus and semi-tendinosus muscles forming a very prominent cord behind it. A cicatrix extended over the back of the leg and the lower part of the thigh.

Dec. 4, 1837. The tendo Achillis was divided by means of a convex knife. The blade was inserted in front of the tendon with the edge directed towards it

so as to cut through it from before backwards, without dividing the sheath or the skin behind it. The foot was maintained in a position favourable to the union of the divided tendon by the instrument intended subsequently to effect the extension.

6. The wound was healed, neither local inflammation nor any symptom of constitutional irritation having taken place. The space between the two ends of the tendon can be distinguished by its softness and by its livid colour. I began with precaution the extension of the foot.

10. The foot forms with the leg an angle of about 110° . The intermediate substance seems pretty strong but thinner than the ends of the divided tendon.

13. The foot forms a right angle with the leg, and the articulating surface of the astragalus has recovered its natural position opposite to the articulating surface of the tibia.

16. The patient began to walk supported by another person.

20. The foot can now be bent to an angle less than a right angle. Some œdematous swelling has taken place on the foot, extending over the ankles, and also enveloping the tendo Achillis. For the last two days the patient has left his bed.

25. The œdematous swelling somewhat diminished. He walks better.

Jan. 24. The œdematous swelling entirely removed. The intermediate substance can be distinguished by its smaller volume. The patient walks well with a stick, but he rests the point of the foot at first on the ground, and the heel afterwards. The left inferior extremity is about an inch and a half shorter than the other.

Since the beginning of February the patient wears his instrument only at night. He walks now without the aid of a stick a distance of three miles and more. The curve of the knee had much improved. The tendons of the semi-tendinosus and semi-membranosus muscles are no longer prominent.

The following observations on the operation by Dr. Krauss, are worthy of being quoted.

First. The preceding case proves the truth of the physiological law that muscles exposed to extreme long-continued traction become transmutated into a fibrous texture.

Second. I prefer a convex bistoury for the section of the tendo Achillis to the concave bistoury employed in Germany, because it corresponds with the shape of this tendon. But for dividing other tendons the concave bistoury is generally preferable to the convex.

Third. The proceeding of Dr. Duval, to divide the tendon from before backwards, is preferable to the contrary method, because

1. It is the most expeditious.

2. The amount of structure divided is much less.

3. The section of the tendo Achillis in a number of bodies has shown me that the sheath of the tendon is only punctured by this method in a dimension equal to the external incision through the skin. The portion of the sheath covering the tendon behind and opposite to the incision, remains uninjured.

4. Experience has also shown me that sudden retraction of the tendon accompanied by noise will often occur whilst some portions of its fibres remain still undivided. In cutting from before backwards, if the knife is inserted in the proper manner, the surgeon will be enabled to avoid this disadvantage with a certainty which he cannot obtain by the contrary method, because in the latter case it is impossible to discover whether any portion remains undivided under the knife.

Fourth. It is not seldom that in the course of the application of the instrument, an œdematous swelling of the foot takes place in consequence of the pressure. This does not prevent the application of the instrument in the usual manner. The œdematous swelling disappears when the cure is accomplished, and when the continued extension and pressure is no longer necessary.

Fifth. Care must be taken in the course of this treatment of pes equinus that the astragalus does not turn inwards or outwards, and the pes equinus become converted into valgus or varus. This accident may be prevented by a well conducted application of the instrument.

Sixth. The contraction of the tendons of the knee, which not unfrequently occurs in pes equinus, in consequence of the greater length of the limb, gradually

diminishes after the cure of the club-foot, and seldom requires the division of these tendons themselves.

Seventh. The difficulty of the cure of varus and valgus depends upon the age of the individual, and the degree of the deformity. The cure requires practice and the well conducted application of proper instruments.

Dr. Krauss stated that he has lately divided, in a case of very deformed varus, in an individual of 22 years of age, the tendon of the tibialis posticus muscle, and the contracted plantar ligament, which latter operation, he believes, has not yet been performed either in France or in Germany. The operation was not followed by inflammation, and the improvement of the shape of the foot was very decided. —*Lancet*, for May 26, 1838.

43. *Spermatocele, or Varicocele of the Spermatic Cord.*—We find in a late number of *Guy's Hospital Reports*, (April, 1838,) some very interesting remarks on this subject by Sir ASTLEY COOPER.

In general this affection produces only inconvenience to the patient, and the plan of treatment then consists in supporting the part; and Sir Astley recommends that this be "effected by applying a suspensory sling, with two tapes sufficiently long to encircle the abdomen. The sling receives the scrotum and testis; and the tapes, passed around the abdomen, and tied in front, secure the parts in an elevated position. No straps should be placed beneath, to pass between the thighs; as they draw back, rather than elevate, the scrotum and swelling.

"As the parts should be kept as cool as possible, the material of the sling should be an open *silk net*, which allows the escape of heat, and prevents a relaxing perspiration. From this support the patient derives great relief; and the application of an evaporating lotion of spirits-of-wine and water relieves him still more. A very good lotion for this purpose consists of *aluminis ʒi. aquæ ʒxi. spiritus vini ʒi.*; but the lotion should be as much as possible devoid of smell, as it leads to the suspicion of some infirmity.

"Washing two or three times a day with cold water, with salt dissolved in it, is useful; and the employment of the shower-bath, or common cold-bath, by constringing the scrotum, prevents the increase of the complaint.

"The dress should be as light as possible, to prevent the production of superfluous heat, and to permit its escape; and all tight dress around the abdomen is to be avoided, to allow of the free return of the venous blood from the testis. Still, however, these means leave the patient with the badge of his infirmity, from his continuing to wear his bandage; and attempts have been made to relieve him, by exciting inflammation and thickening of the scrotum, and thus to render it a better support to the testes. I have applied the pyroligneous acid for this purpose; but the pain which it excited was severe, and the good effect only temporary. I have also employed blisters with the same view, and with the same effect.

"It has been advised to draw the scrotum through a ring, and fix it there, the person continuing to wear it; but, as it may be readily believed, this has no advantage over the use of the sling-support; and is a much greater annoyance to the patient's feelings, either than the disease itself, or the bandage which he is usually called upon to wear."

There are cases, however, in which this complaint produces so much pain and distress, as to render it absolutely necessary to do something more than is generally advised. Sir Astley has seen, in the course of his practice, many persons suffer so severely in mind and body from it, that they would readily submit to any operation which was not attended with danger to life, to obtain relief. As to tying the veins of the spermatic cord—from what he has seen of the dangerous and destructive effect of exciting inflammation in veins—he should never propose it; nor does he think, if it were not dangerous, that it is founded on proper principles. But in his *Work on the Testis*, published in the year 1830, he has advised the removal of a portion of the scrotum, in the following words:—

"*The removal of a portion of the scrotum will lead to a diminution of the veins of the spermatic cord; and it is an operation, in an extreme enlargement accompanied with pain, which might be tried with perfect safety, and is very likely to succeed.*"

He had, at that time, never performed the operation, and he therefore spoke of the probability of success only: but, aware of its being free from danger, and seeing that it would render the remaining portion of the scrotum a natural bandage,